

HAZARD CONTROL PLAN AND WORK AUTHORIZATION Page 1 of ____

This form is from ESH-17-035

1. Describe the work to be performed (use continuation page if needed) or give procedure number, revision number, and title.

HCP-ESH-17-206, R4

Title: "Maintenance of Air Sampling Pumps"

2. Describe potential hazards associated with the work (use continuation page if needed).

Lifting/moving/dropping pumps from vehicles and bench tops

Trips/falls from moving pumps

Eye injuries from blowing dust off using compressed air

Injuries from use of hand tools and vise

Injuries from use of hydraulic press in pressing rotor or bearings on/off

Burns from use of bearing heater in replacing new bearings

Potential hearing loss from running pumps inside building during break-in procedure

3. For each hazard, list the likelihood and severity, and the resulting initial risk level (before any work controls are applied, as determined according to LIR300-00-01.0, section 7.2)

Lifting/moving pumps from vehicles and bench tops--Critical/Improbable = Low

Trips/falls from moving pumps--Moderate/Improbable = Minimal

Eye injuries from blowing dust off using compressed air--Critical/Remote = Minimal

Injuries from use of hand tools and vise--Moderate/Improbable = Minimal

Injuries from use of hydraulic press in pressing rotor or bearings on/off--Critical/Remote = Minimal

Burns from using bearing heater--Moderate/Improbable = Minimal

Hearing damage from pump noise -- Critical/occasional = Medium (ESH-5 measured noise levels: below level that requires hearing protection)

Overall *initial* risk: ☐ Minimal ☐ Low ☒ Medium ☐ High

4. Applicable Laboratory, facility, or activity operational requirements directly related to the work:

☒ None ☐ List:Work Permits required? ☒ No ☐ List:

5. Describe how the hazards listed above will be mitigated (e.g., safety equipment, administrative controls, etc.):

Lifting/moving pumps from vehicles and bench tops--use of hydraulic carts, Tommy tailgate lift, and bench tops that are at heights that minimize lifting.

Trips/falls from moving pumps--procedure ESH-17-032 includes training and awareness of tripping and fall hazards; use common sense

Eye injuries from blowing dust off using compressed air--personnel will wear safety glasses or use the sash on the hood set to lowest point.

Injuries from use of hand tools and vise--use common sense.

Injuries from use of hydraulic press in pressing bearing on/off--On the job training required and use common sense

See continuation page---

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6. Knowledge, skills, abilities, and training necessary to safely perform this work (check one or both):



Group-level orientation (per ESH-17-032) and training to applicable procedure.



Other → Describe:

First Aid/CPR

7. Any wastes and/or residual materials? (check one) ☒ None ☐ List:8. Considering the administrative and engineering controls to be used, the *residual* risk level (as determined according to LIR300-00-01.0, section 7.3.3) is (check one):

Minimal



Low



Medium (requires approval by Division Director)

9. Emergency actions to take in event of control failures or abnormal operation (check one):



None



List:

Apply first aid for all injuries, as applicable, and see that injured person is transported to either ESH-2, occupational medicine group, or a hospital.

After this form is approved, perform the work safely. Identify opportunities for improvements in safety and report these to the safety officer or group leader.

Preparer(s) signature(s)

Name(s) (print)

/Position

Date

[NOTE: Training to a procedure constitutes authorization.] **If this work is NOT described by a procedure:** I have reviewed the safety of this proposed work with the group safety officer and I commit to follow safe practices when performing this work.

Employee signature

Name (print)

Date

Additional employee signature (optional)

Name (print)

Date

Additional employee signature (optional)

Name (print)

Date

Group leader or safety officer review.

I have reviewed the proposed work with 1) the preparer(s) and 2) employees who will perform the work (if not described in a procedure) and I believe the hazards and safety concerns have been adequately addressed. The work as described above is hereby authorized. This authorization expires one year after the date below.

Group leader or safety officer signature

Name (print)

Date

This plan will be revised according to ESH-17-035. Group leader or safety officer: After completion, submit to ESH-17 Records Coord.

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Hazard Control Plan continuation page. Give item number being continued.

#5 Mitigation of hazards:

Burns from using bearing heater--use thermal gloves; wire guard in place when heating and cooling.

Hearing damage -- Per administrative decision, pumps may be operated indoors for a maximum of two minutes. All long-term pump tests will be conducted outdoors. Pumps may be run indoors overnight but must be turned off or moved outdoors at the beginning of each following work day.